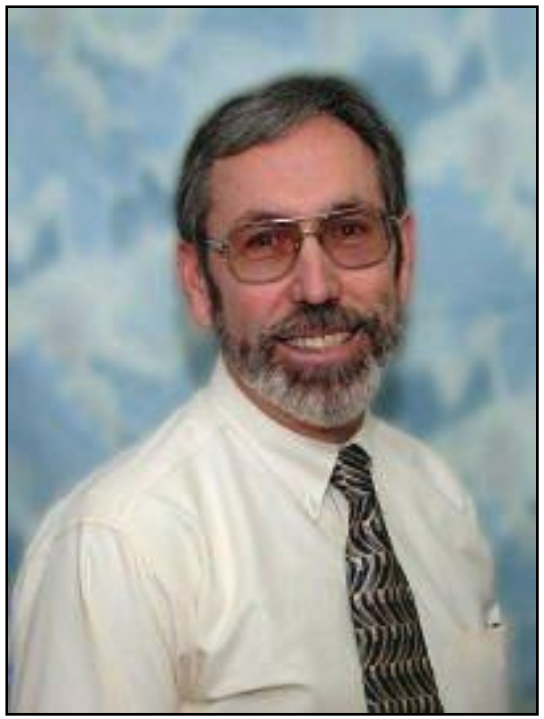
Agriculture/Pesticide Handler Safety Culture



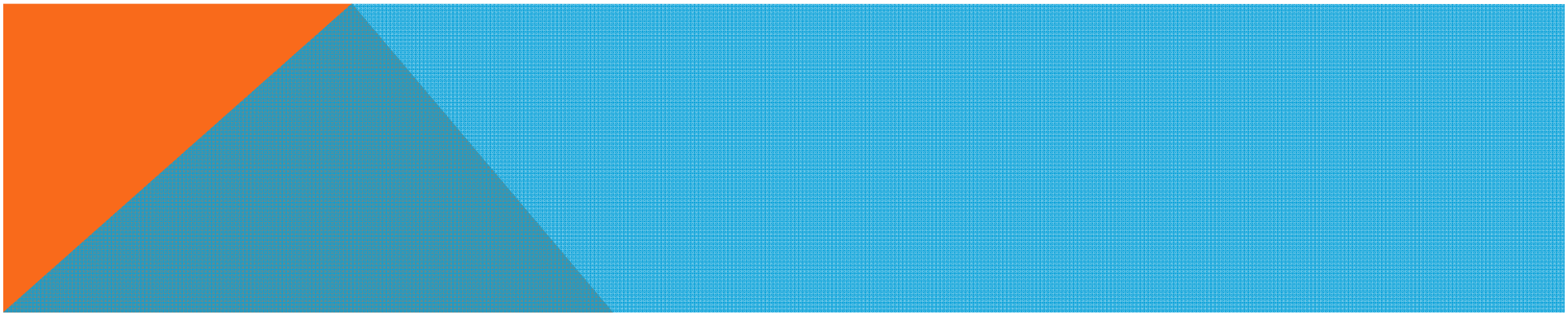
Ron Jester, MS, PE
University of Delaware

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UNDERSTANDING THE FARM CULTURE AND ITS IMPACT ON SAFETY

OUTLINE

- The Farm Culture – defining and understanding it
- Development of an Industrial Safety Culture
- Developing a safety culture in agriculture



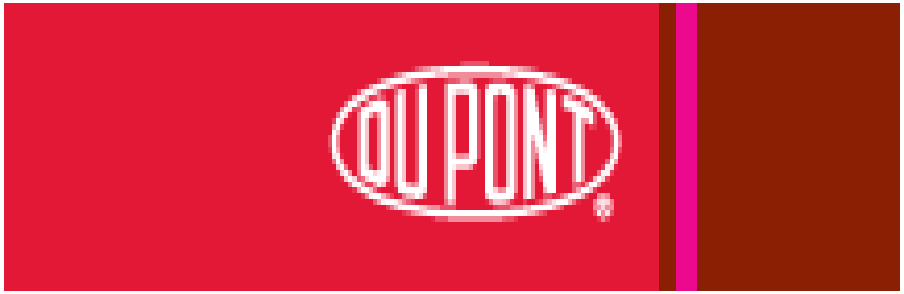
“GOD MADE A FARMER”

- Hard work
- Long hours
- Diversity of tasks/skills
- Compassion
- Strong yet gentle
- Community involvement
- Bonds a family
- Able to improvise
- Plow deep and not cut corners



DEFINITION OF A CULTURE

- Culture refers to the cumulative deposit of the following:
 - Knowledge
 - Experience
 - Beliefs
 - Values
 - Attitudes
 - Meanings
 - Hierarchies
 - Religion
 - Notions of time
 - Roles acquired by a group of people in the course of generations through individual and group strivings.



CHARACTERISTICS OF A FARM CULTURE

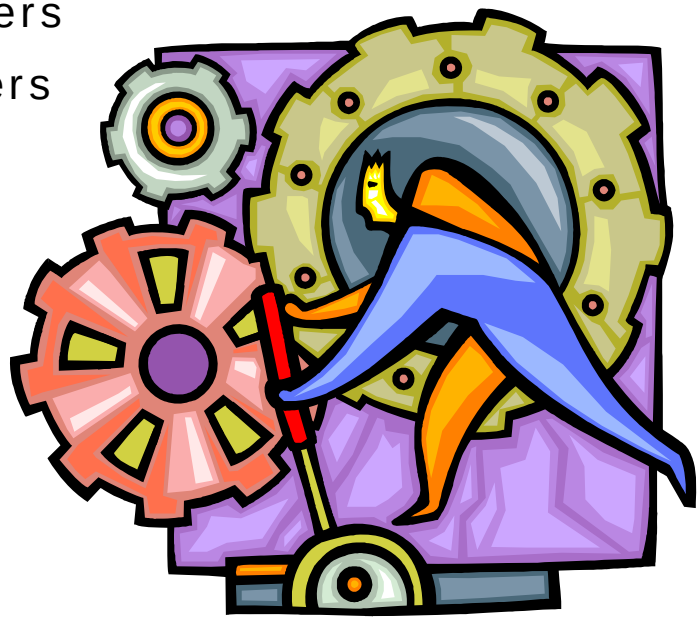
- Independence
- Multi-tasking
- Family oriented
- Diversified
- Macho attitudes
- Lack of accountability



- Absence of safety and health regulations
- Values are in work ethics, land conservations, long hours, hard work, honesty, etc.

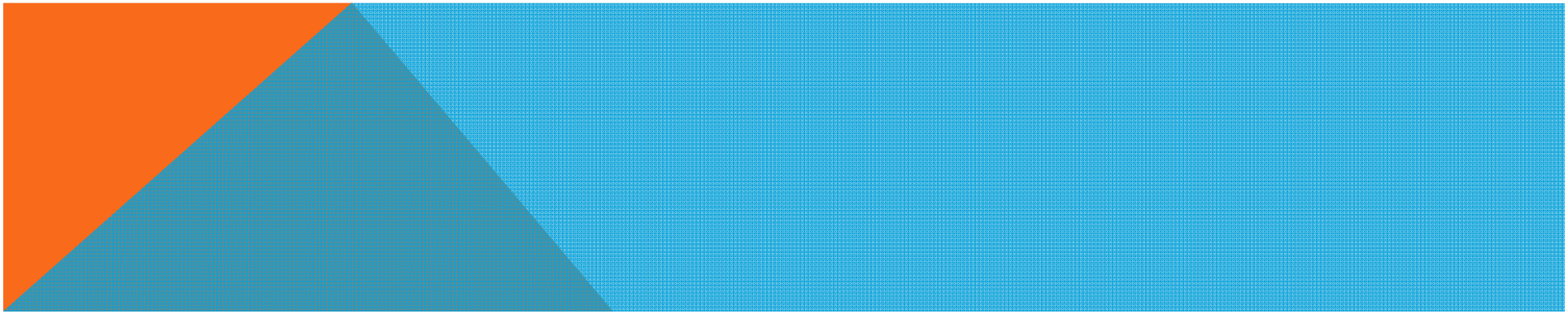
WHAT WAS STATE OF INDUSTRIAL SAFETY IN LATE 19TH CENTURY IN US?

- Courts consistently favored employers
- Defenses used on behalf of employers
 - Assumption of risk
 - Contributory negligence
 - Fellow servant rule
- No workman's compensation laws
- Very few safety laws
- Lack of leadership by labor unions



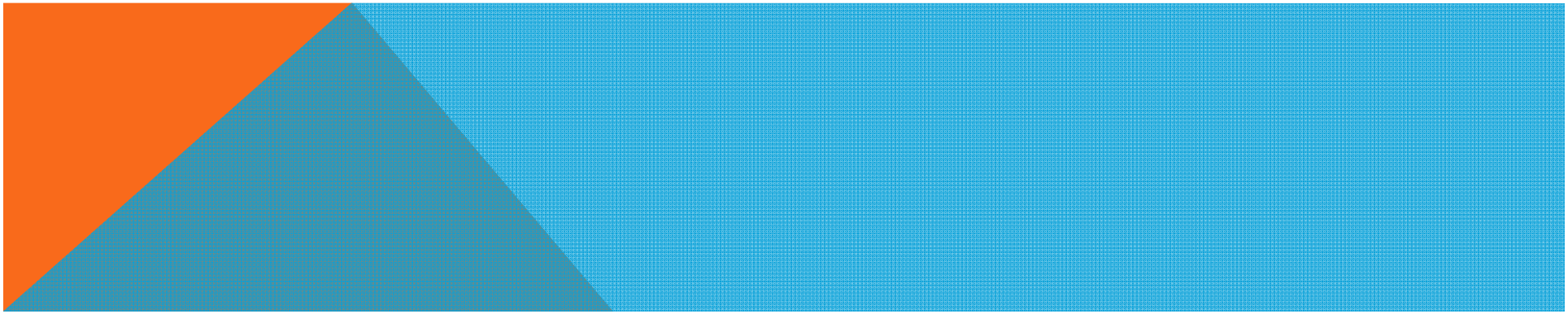
WHAT HAPPENED TO CHANGE THE STATE OF SAFETY IN THE US IN THE EARLY 1900S

- Workers compensation laws were enacted
- Triangle Shirtwaist Factory results in fire codes and laws to protect workers
- NSC and ASSE formed
- The Supreme Court upheld the constitutionality of state workers' compensation laws
- Employers began to adopt a broader preventive approach to safety; in more progressive industries managers were now responsible for safety
- Secretary of labor called for a federal safety and health law
- Walsh-Healey Act – required all federal contracts be fulfilled in a healthful and safe working environment



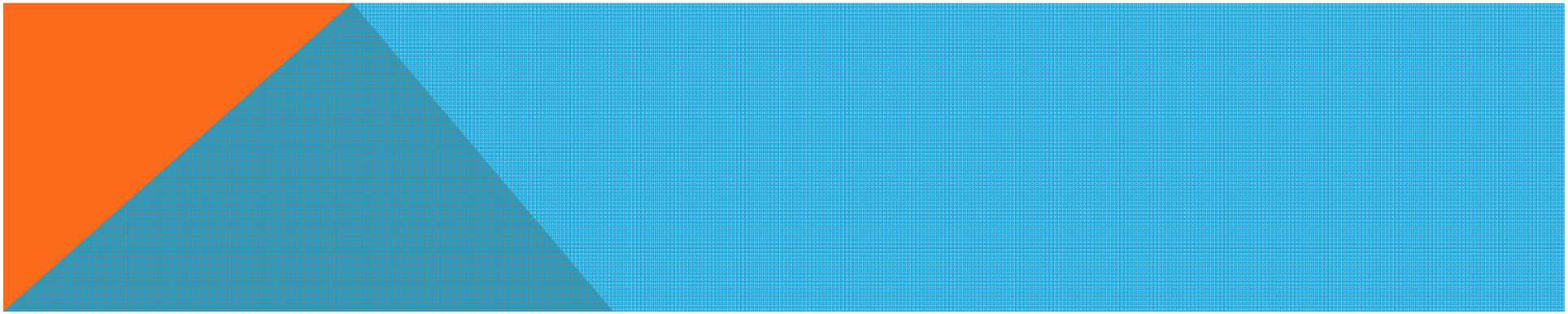
IMPACT OF CHANGES IN WORKPLACE SAFETY

- In 1900 there were 1,500 workplace deaths in mines; in 1999 there were 35
- In 1900 there were 2,550 workplace deaths on the railroads; in 1999 there were 56
- According to the National Safety Council there were 19,500 workplace deaths in 1912; in 1999 there were 5,100
- The workplace fatality rate has been cut by 50% in the past 60 years



BASIC STEPS TO ESTABLISH A SAFETY CULTURE

- Prove a problem exists
- Gain management support
- Establish critical controls
- Include safety in performance reviews
- Make workers accountable



BEST PRACTICES IN A “SAFETY” CULTURE

- Audits
- Worker involvement - stakeholder ownership
- responsibility / accountability
- Communications
- Continual training
- Metrics
- Rewards performance standards
- Incident investigations
- Vision
- Commitment to change organizational “norms”

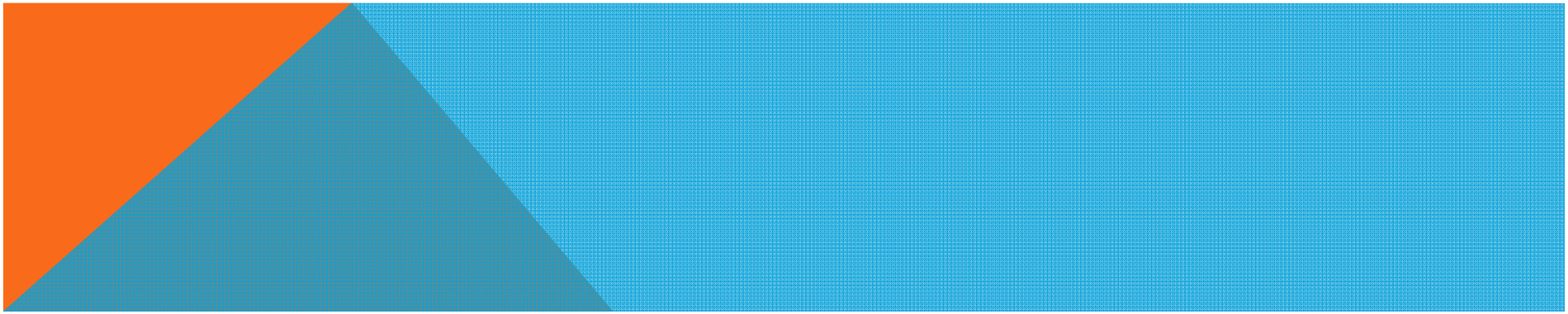


INCENTIVES FOR DEVELOPING A SAFETY CULTURE IN YOUR BUSINESS

- Corporate image
- Liability
- OSHA
- Workers Compensation
- Productivity

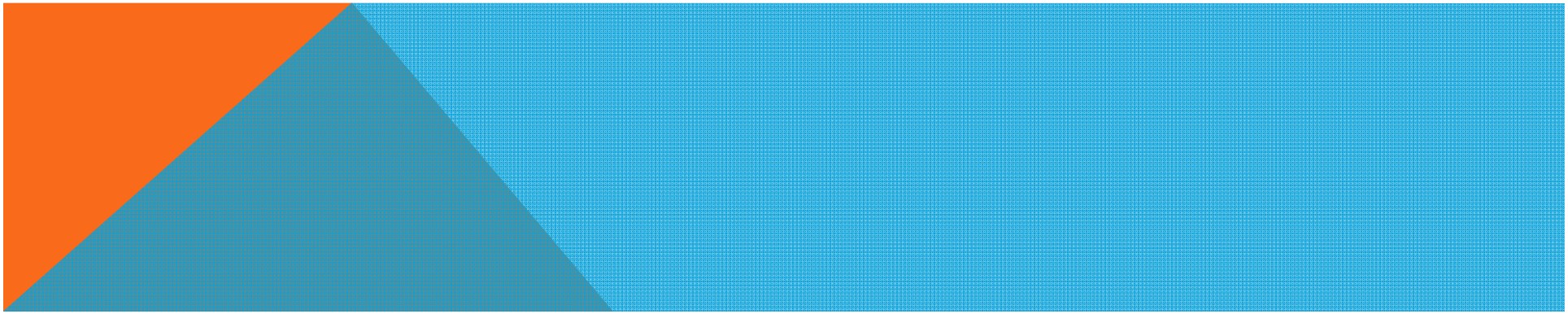
CURRENT FATALITY RATES (2011)

- Construction – 8.9
- Transportation/warehousing – 15.0
- Mining – 15.8
- Agriculture – 24.4
- Average of all industries – 3.5



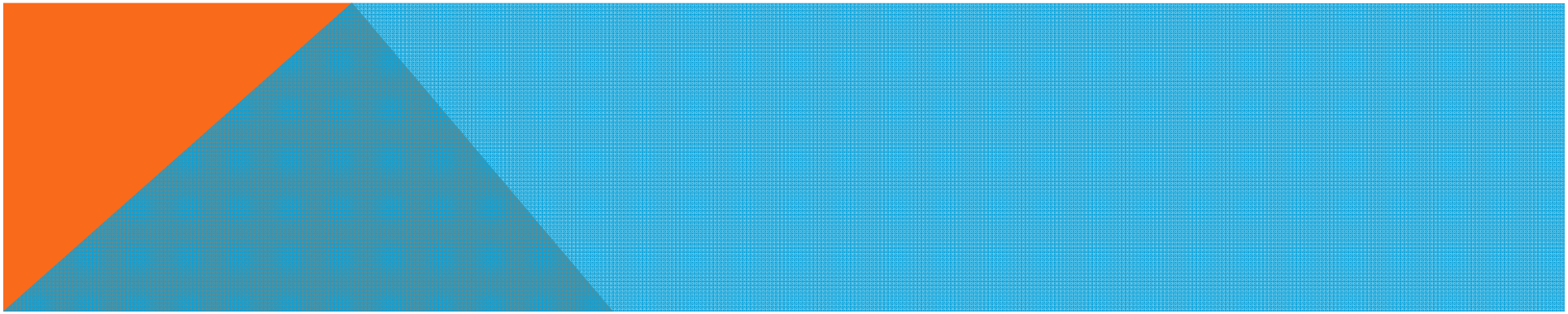
WHAT HAS HAPPENED TO THE FATALITY RATE IN THE LAST 30 YEARS WITH THE MOST HAZARDOUS INDUSTRIES?

Year	Construction	Mining	Agriculture
1980	21.0	44.0	25.0
2011	8.9	15.8	24.4



FARM CULTURE ≠ SAFETY CULTURE

- Agriculture is the most hazardous industry in US
- Death rate = 24/100k
- Injury rate = 5.2/100 workers
- 7 times more hazardous than the average industry
- Kills more children than any other industry



IS THIS INDICATIVE OF THE SAFETY CULTURE OF THE FARM?



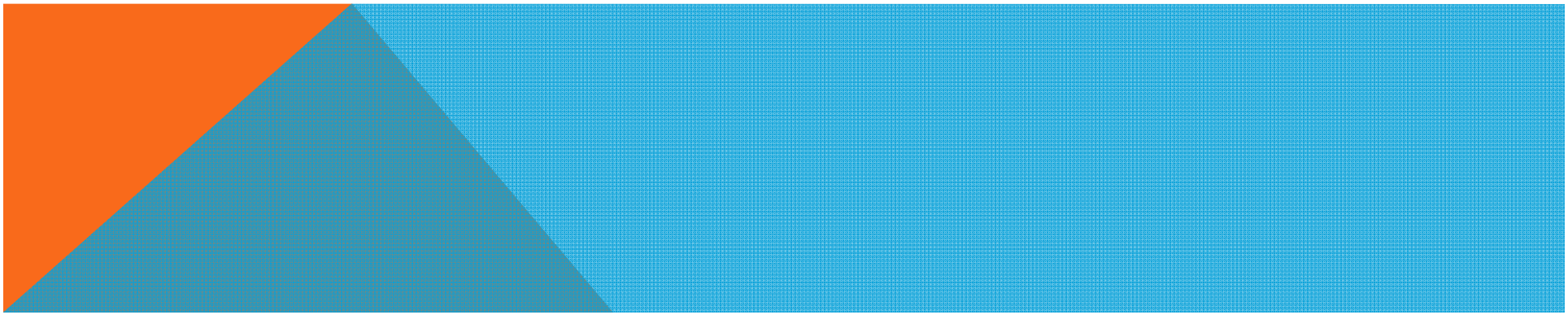






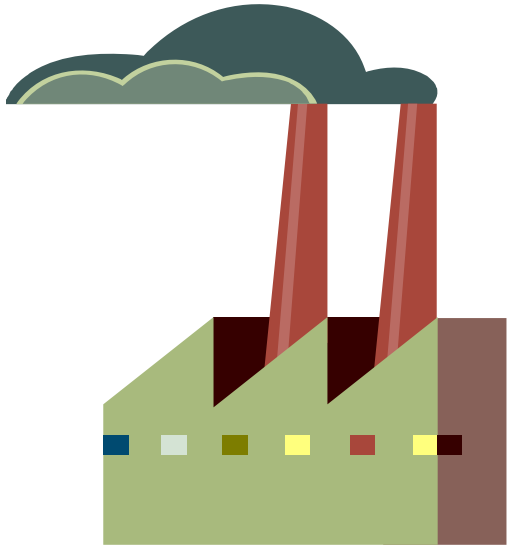
WHAT ARE CORE VALUES

- Those values which form the foundation on which we perform work and conduct ourselves
- Fundamental beliefs of a person or organization
- Represent deeply held beliefs, highest priorities and fundamental forces that drive one's actions



HOW DOES A SAFETY CULTURE EVOLVE

- DuPont's dedication to safety can be traced back to the Brandywine Creek gun powder operation where 2 family members and others died



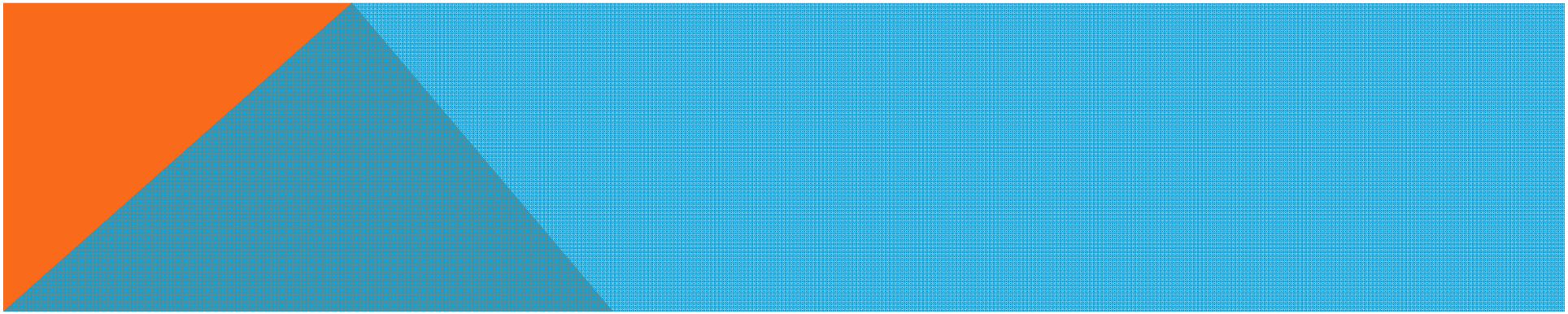
HOW DOES A SAFETY CULTURE EVOLVE

- Farm Safety for Just Kids – an organization dedicated to reducing childhood injuries and fatalities on farms values can be traced to the death of the founder's eleven year old son in a farm accident. The organization now has more than 100 chapters throughout the US and Canada.



LACK OF INCENTIVES FOR DEVELOPING A SAFETY CULTURE IN THE FARM BUSINESS

- No OSHA coverage and few safety regulations
- Exempt from worker's compensation
- Minimal liability with family members
- There has been no serious incident on the farm
- The attitude, "it won't happen to me" prevails



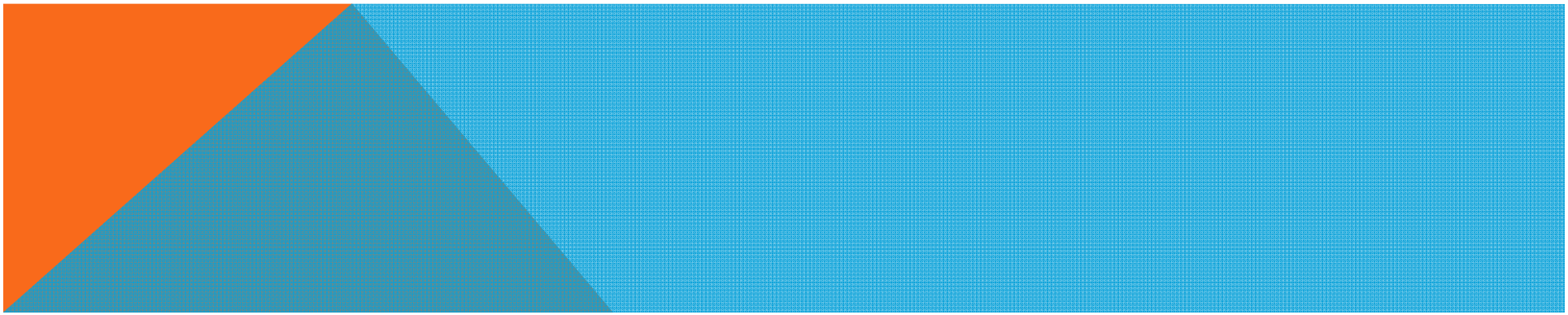
WHAT IS THE ROOT OF INJURIES ON FARMS

Unsafe Conditions

- 4%

Unsafe Acts / Behaviors

- 96%



WHAT NEEDS TO HAPPEN TO CREATE A SAFETY CULTURE ON FARMS

- CREATING A SAFETY CULTURE ON FARMS IS A MATTER OF BEHAVIOR MODIFICATION AND CREATING THE PROPER INCENTIVES



HOW DO WE CHANGE BEHAVIORS ON THE FARM?

- Motivations
- Incentives
- Accountability
- Team approach
- Fear
- Belief
- Others

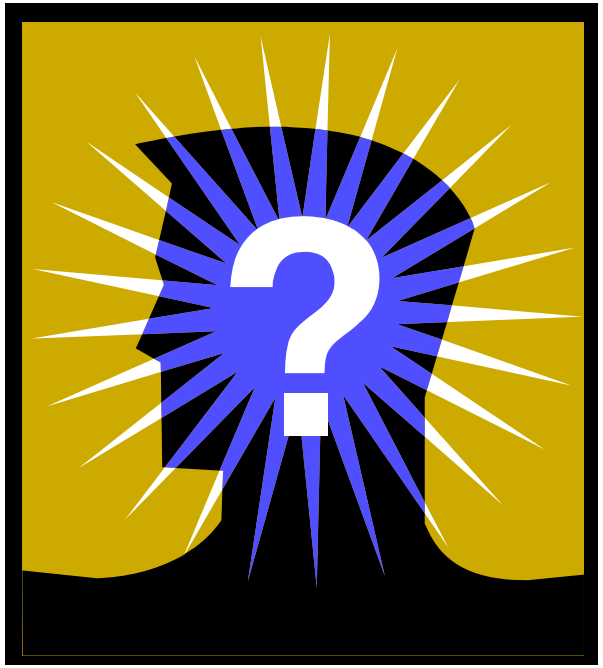


WHAT INCENTIVES NEED TO BE CREATED?

- Financial
- Regulatory
- Storytelling
- Value of life
- Awards
- Liability
- Positive image
- Others



Q & A



DISCLAIMER

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